

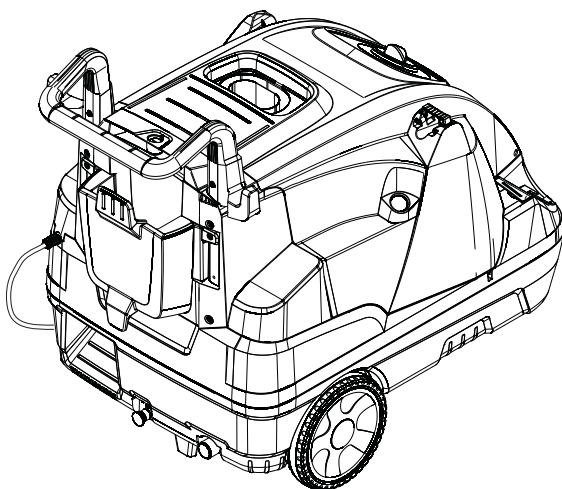
KÄRCHER

makes a difference

HDS 5/10 C

English

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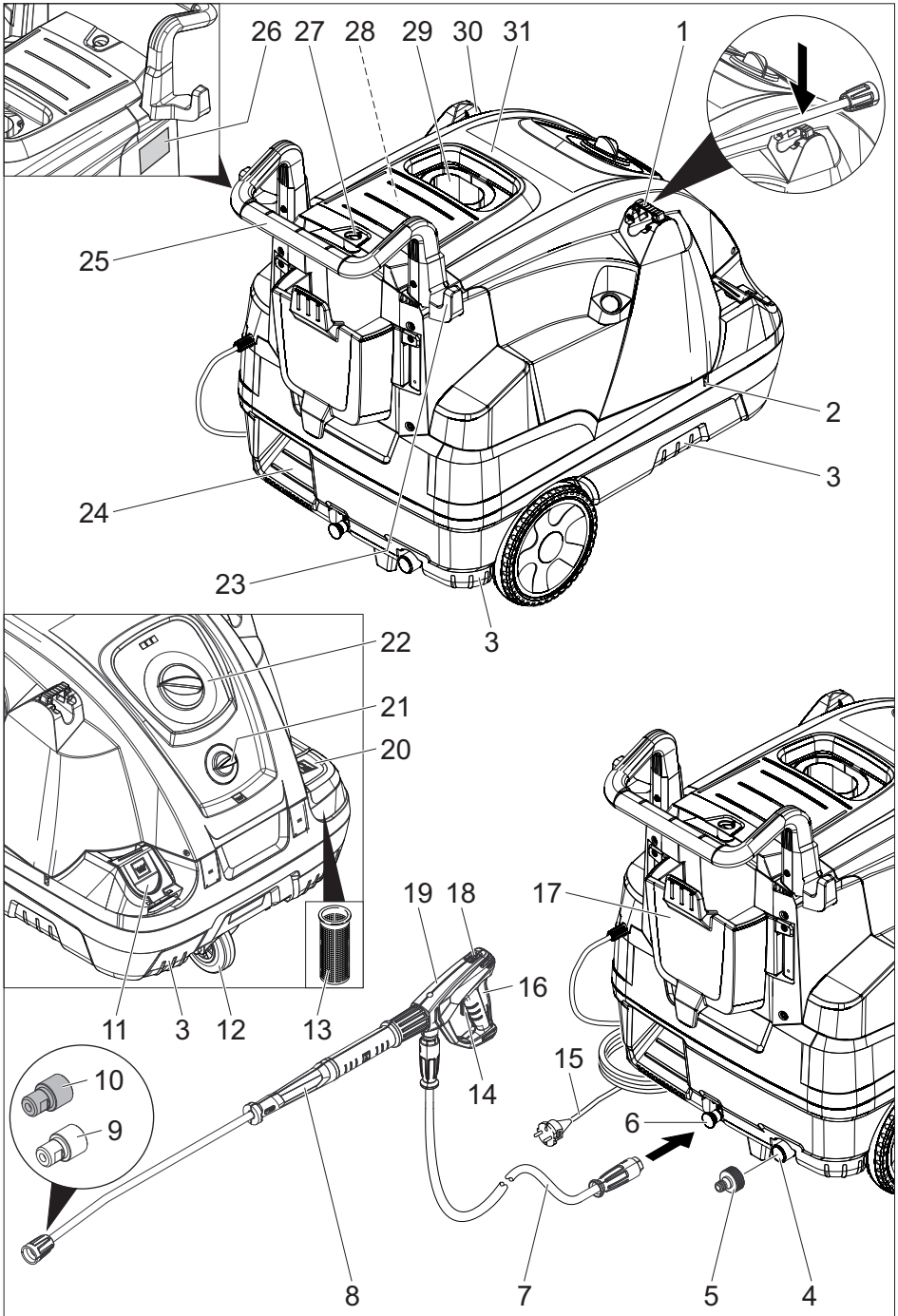


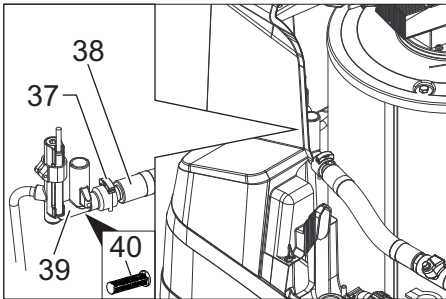
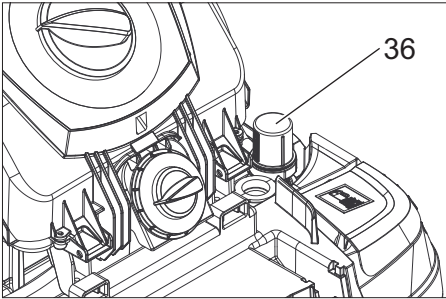
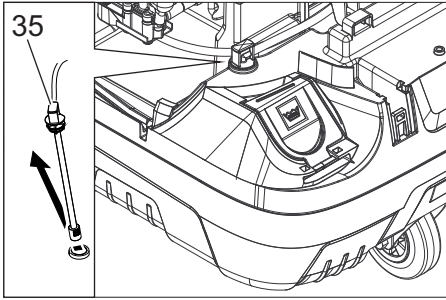
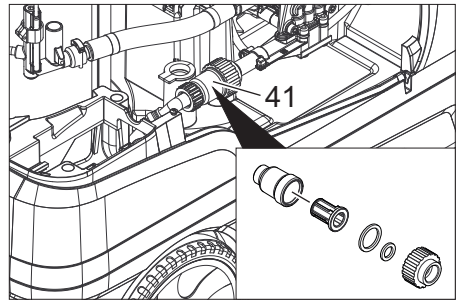
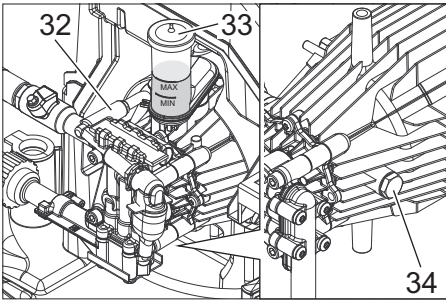
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www.kaercher.com/welcome

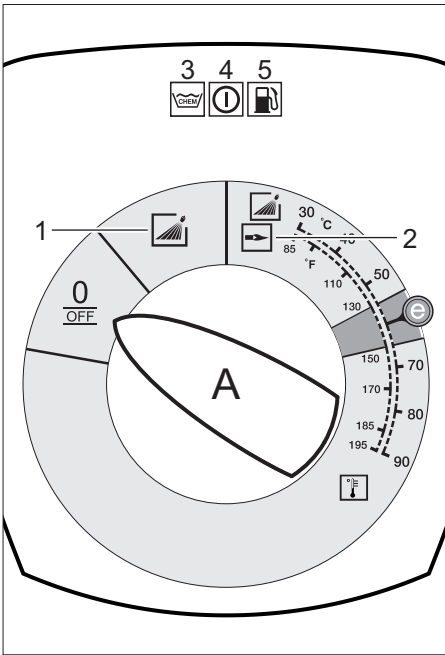


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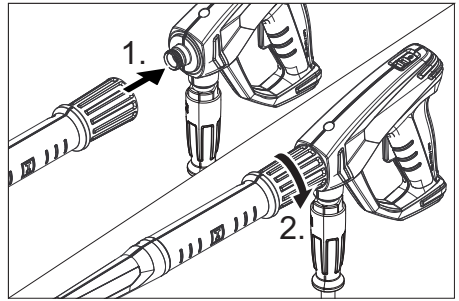




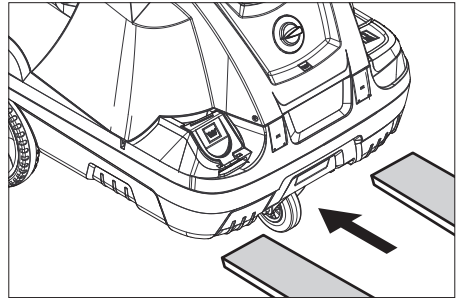
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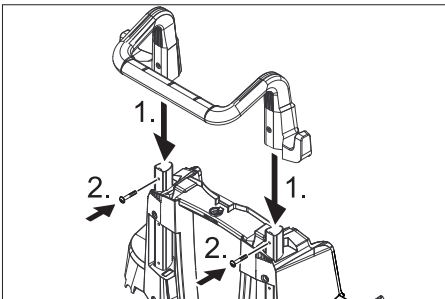
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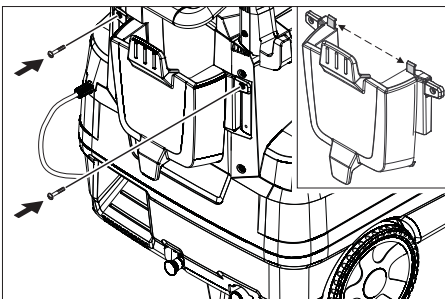
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4



Please read and comply with these original instructions prior to the initial operation of your appliance and store them for

- later use or subsequent owners.
- Before first start-up it is definitely necessary to read the operating instructions and safety indications Nr. 5.951-949.0!
- In case of transport damage inform vendor immediately.
- Check the contents of the pack before unpacking. For scope of delivery see illustration 1.
- At operating elevations of approx. 800 m above sea level or higher, please contact your dealer to have the burner setting adjusted to the elevation and reduced oxygen content.

Contents

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Environmental protection



The packaging material can be recycled. Please do not throw the packaging material into household waste; please send it for recycling.



Old appliances contain valuable materials that can be recycled; these should be sent for recycling. Batteries, oil, and similar substances must not enter the environment. Please dispose of your old appliances using appropriate collection systems.

Electrical and electronic devices often contain components which could potentially pose a danger to human health and the environment if handled or disposed of incorrectly. However, these components are necessary for the proper operation of the device. Devices marked with this symbol must not be disposed of with regular household rubbish.

Please do not release engine oil, fuel oil, diesel and petrol into the environment. Protect the ground and dispose of used oil in an environmentally-clean manner.

Notes about the ingredients (REACH)

You will find current information about the ingredients at:

www.kaercher.com/REACH

Danger or hazard levels

⚠ DANGER

Pointer to immediate danger, which leads to severe injuries or death.

⚠ WARNING

Pointer to a possibly dangerous situation, which can lead to severe injuries or death.

⚠ CAUTION

Pointer to a possibly dangerous situation, which can lead to minor injuries.

ATTENTION

Pointer to a possibly dangerous situation, which can lead to property damage.

Overview

Device elements

Figure 1

- 1 Support for spray lance
- 2 Recess for detergent suction hose
- 3 Recessed grip (both sides)
- 4 Connection for water supply with filter
- 5 Water connection adapter
- 6 High-pressure connection EASY!Lock
- 7 High pressure hose EASY!Lock
- 8 Spray lance EASY!Lock
- 9 High-pressure nozzle (stainless steel)
- 10 Low pressure nozzle (brass)
- 11 Pouring vent for detergent
- 12 Steering roller with fixed position brake
- 13 Fuel sieve
- 14 Safety lever
- 15 Power supply
- 16 Trigger
- 17 Tool bag
- 18 Safety latch of the hand spray gun
- 19 Trigger gun EASY!Force
- 20 Pouring vent for fuel
- 21 Dosage valve for detergent
- 22 Operating field
- 23 Storage for hand spray gun
- 24 Step depression
- 25 Handle
- 26 Nameplate
- 27 Cover lock
- 28 Storage compartment for accessories
- 29 Burner
- 30 Recess for spray pipe
- 31 Cover
- 32 Backflow valve of the detergent infeed
- 33 Oil tank
- 34 Oil drain screw
- 35 Detergent suction hose with filter
- 36 Fuel filter
- 37 Fastening clamp
- 38 Hose (soft damping system) of the water shortage safeguard
- 39 Water shortage safeguard
- 40 Sieve in the water shortage safeguard
- 41 Fine filter (water)

Operating field

Figure 2

- A Power switch
0/OFF = Off
- 1 Operating mode: Cold water operation
 - 2 Operating mode: Hot water operation (e = Eco mode, hot water max. 60 °C)
 - 3 Indicator lamp for detergent
 - 4 "Ready for use" indicator lamp
 - 5 Fuel indicator lamp

Colour coding

- The operating elements for the cleaning process are yellow.
- The controls for the maintenance and service are light gray.

Symbols on the machine



High-pressure jets can be dangerous if improperly used. The jet may not be directed at persons, animals, live electrical equipment or at the appliance itself.



*Risk of electric shock!
Only electricians or authorised technicians are permitted to work on parts of the plant.*



Risk of burns on account of hot surfaces!



Risk of poisoning! Do not inhale exhaust fumes.

According to applicable regulations, the appliance must never be used on the drinking water net without a system separator. Ensure that the connection of your building water installation on which the high-pressure cleaner is operated is equipped with a system separator pursuant to EN 12729 Type BA. Water that was flowing through a system separator is considered non-drinkable.



⚠ CAUTION

Always connect the system separator to the water supply, never directly to the appliance!

Proper use

Cleaning of: Machines, Vehicles, Structures, Tools, Facades, Terraces, Gardening tools, etc.

⚠ DANGER

Risk of injury! Follow the respective safety regulations when operating at gas stations or other dangerous areas.

Please do not let mineral oil contaminated waste water reach soil, water or the sewage system. Perform engine cleaning and bottom cleaning therefore only on specified places with an oil trap.

Quality requirements for water:

ATTENTION

Only clean water may be used as high pressure medium. Impurities will lead to increased wear and tear or formation of deposits in the appliance and accessories. If recycled water is used, the following limit values must not be exceeded.

pH value	6,5...9,5
electrical conductivity *	Conductivity fresh water +1200 µS/cm
settleable solids **	< 0,5 mg/l
total suspended solids ***	< 50 mg/l
Hydrocarbons	< 20 mg/l
Chloride	< 300 mg/l
Sulphate	< 240 mg/l
Calcium	< 200 mg/l
Total hardness	< 28 °dH < 50 °TH < 500 ppm (mg CaCO ₃ /l)
Iron	< 0,5 mg/l
Manganese	< 0,05 mg/l
Copper	< 2 mg/l
Active chloride	< 0,3 mg/l
free of bad odours	
* Maximum total 2000 µS/cm ** Test volume 1 l, settling time 30 min *** no abrasive substances	

Safety instructions

- Please follow the national rules and regulations for fluid spray jets of the respective country.
- Please follow the national rules and regulations for accident prevention of the respective country. Fluid spray jets must be tested regularly and the results of these tests must be documented in writing.
- The heating appliance of the machine is an ignition plant. All national laws and regulations about heating systems must also be followed.
- The appliance/accessories must not be modified.

Safety Devices

Safety devices serve for the protection of the user and must not be put out of operation or bypassed with respect to their function.

Pressure switch

- The pressure switch turns the device off when the handgun is closed and switch on when the handgun is opened.

Safety valve

- The safety valve opens, when the overflow valve resp. the pressure switch is broken.
- The safety valve is set by the manufacturer and sealed. Setting only by customer service.

Water shortage safeguard

- The water shortage safeguard prevents the burner to be turned on when there is water shortage.
- A sieve prevents the contamination of the safeguard and must be cleaned regular.

Temperature stop for exhaust gases

- The temperature stop switches off the machine when the waste gases have reached very high temperatures.

Start up

⚠ **WARNING**

Risk of injury! Appliance, accessories, supply lines and connections must be in fault-free condition. If they are not in a perfect state then the appliance must not be used.

- ➔ Lock parking brake.

Installing the handle

Figure 3

Screw tightening torque: 6.5-7.0 Nm

Install the tool bag

Figure 4

- ➔ Hook the tool bag onto the top tabs on the appliance.
- ➔ Tilt the tool bag down and lock it into place.
- ➔ Fasten the tool bag with 2 screws (torque: 6.5 - 7.0 Nm).

Install the hand-spray gun, the jet pipe, the nozzle and the high pressure hose

Note: The EASY!Lock system joins components with a quick-fasten thread solidly and securely with just one turn.

Figure 5

- ➔ Join the spray lance with the trigger gun and tighten until hand-tight (EASY!Lock).
- ➔ Insert the high pressure nozzle onto the spray lance.
- ➔ Install union nut and hand-tighten it (EASY!Lock).
- ➔ Join the high-pressure hose with trigger gun and high-pressure connection of the appliance and tighten until hand-tight (EASY!Lock).

Refill fuel

⚠ **DANGER**

Danger of explosion! Only refill diesel oil or light fuel oil. Inappropriate fuels, e.g. petrol, must not be used.

ATTENTION

Risk of damage! Never operate device with an empty fuel tank. The fuel pump will otherwise be destroyed.

- ➔ Refill fuel.
- ➔ Close tank lock.
- ➔ Wipe off spilled fuel.

Refill detergent

⚠ **DANGER**

Risk of injury!

- Use Kärcher products only.
- Under no circumstances fill solvents (petrol, acetone, diluting agent etc.)
- Avoid eye and skin contact.
- Observe safety and handling instructions by the detergent manufacturer.

Kärcher offers an individual cleaning and care appliances program.

Your dealer will consult you gladly.

- ➔ Refill detergent.

Water connection

For connection values refer to technical specifications.

- ➔ Connect the supply hose (minimum length 7.5 m, minimum diameter 3/4") to the water connection of the unit and to the water inlet (e.g. tap) using the water connection adapter.

Note: The supply hose is not included in the scope of delivery.

Suck in water from vessel

- ➔ Connect suction hose (minimum diameter 3/4") with filter (accessory) to the water connection point.
- Max. suck height: 0.5 m

Until the pump sucked in water, you should:

- ➔ Close the dosing valve for the detergent.

⚠ **DANGER**

Risk of personal injury or damage! Never suck in water from a drinking water container. Never suck in liquids which contain solvents like lacquer thinner, petrol, oil or unfiltered water. The sealings within the device are not solvent resistant. The spray mist of solvents is highly inflammable, explosive and poisonous.

Power connection

- For connection values, see technical data and type plate.
- The electrical connections must be done by an electrician according to IEC 60364-1.

⚠ **DANGER**

Risk of injury on account of electric shock!

- *Unsuitable electrical extension cables can be hazardous. Only use electrical extension cables outdoors which have been approved and labelled for this purpose and have an adequate cable cross-section.*
- *Always unwind extension lines completely.*
- *The plug and coupling of the extension cable used must be watertight.*

ATTENTION

The highest allowed net impedance at the electrical connection point (refer to technical data) is not to be exceeded. In case of confusion regarding the power impedance present on your connection, please contact your utilities provider.

Operation

⚠ **DANGER**

Danger of explosion! Do not spray flammable liquids.

⚠ **DANGER**

Risk of injury! Never use the appliance without the spray lance attached. Check and ensure proper fitting of the spray lance prior to each use. The screw connection of the spray lance must be finger-tight.

⚠ **DANGER**

Risk of injury! Hold the hand spray gun and the spray pipe firmly with both hands.

⚠ **DANGER**

Risk of injury! The trigger and safety lever may not be locked during the operation.

⚠ **DANGER**

Risk of injury! Contact Customer Service if the safety lever is damaged.

ATTENTION

Risk of damage! Never operate device with an empty fuel tank. The fuel pump will otherwise be destroyed.

Opening/closing the trigger gun

- To open the trigger gun: Actuate the safety lever and trigger.
- To close the hand spray gun: Release the safety lever and trigger.

Replace the nozzle

⚠ DANGER

Risk of injury! Switch the appliance off prior to replacing nozzle and activate hand spray gun until device is pressureless.

- Secure the trigger gun. To do so, push the safety catch towards the front.
- Replacing the nozzle.

Turning on the Appliance

- Set appliance switch to desired operating mode. Indicator lamp for operational readiness lights up. The device starts briefly and turns off, as soon as the working pressure is reached.

- Release the trigger gun. To do so, push the safety catch towards the back.

When activating the hand spray gun the device switches back on.

Note: If no water comes out of the high pressure nozzle, vent pump. Refer to "Help with malfunctions - appliance is not building up pressure".

Adjust cleaning temperature

- Set device switch to desired temperature.

Operation with detergent

- For considerate treatment of the environment use detergent economically.
- The detergent must be suitable for the surface to be cleaned.
- Replace the high-pressure nozzle with the included low-pressure nozzle (brass).
- With support of the detergent dose valve set detergent concentration as determined by the manufacturer.

Note: Recommended values at the control panel at maximum working pressure.

Note: If detergent is suctioned from an external container, route the detergent suction hose through the recess to the outside.

Cleaning

- Set temperature and detergent concentration according to the surface to be cleaned.

Note: To prevent damage due to too much pressure, always position high pressure ray first from a greater distance towards object to be cleaned.

Recommended cleaning method

- Loosen the dirt:
- Spray detergent economically and let it work for 1...5 minutes but do not let it dry up.
- Remove the dirt:
- Spray off loosened dirt with the high pressure jet.

Operating with cold water

Removal of light contaminations and clear rinse, i.e.: Gardening tools, terrace, tools, etc.

Eco level

The appliance works in the most economical temperature range (max. 60 °C).

Operating with hot water

⚠ DANGER

Scalding danger!

- Set device switch to desired temperature.

We recommend the following cleaning temperatures:

- Light contaminations
30-50 °C
- Contaminations containing protein, i.e. in the food processing industry
max. 60 °C
- Vehicle cleaning, machine cleaning
60-90 °C

Interrupting operation

- Secure the trigger gun. To do so, push the safety catch towards the front.

After operation with detergent

- Set dosing value for detergent to "0".
- Set the appliance switch to "1" (operation with cold water).
- Open the hand spray gun and rinse the appliance for at least 1 minute.

Turn off the appliance

⚠ DANGER

Danger of scalding from hot water! After operation with hot water, the device must be operated with opened handgun with cold water for at least two minutes.

- Shut off water supply.
- Open the hand spray gun.
- Switch on the pump with the power switch and allow to run for about 5-10 seconds.
- Close the hand spray gun.
- Set the appliance switch to "0/OFF".
- Pull main plug out of socket with dry hands only.
- Remove water connection.
- Activate hand spray gun until device is pressure less.
- Secure the trigger gun. To do so, push the safety catch towards the front.

Storing the Appliance

- Lock in the steel pipe into the holder of the appliance hood.
- Roll up high pressure hose and electrical conduit and hang them into the respective holders.

Note: Do not twist high pressure hose and electrical conduit.

Frost protection

ATTENTION

Risk of damage! Frost will destroy the appliance if the water has not been completely drained.

- Store in a frost free area.

If the device is connected to a chimney, the following must be observed:

ATTENTION

Threat of damage by penetrating cold air through the chimney.

- Disconnect device from chimney when outside temperature drops below 0 °C.
- If it is not possible to store frost free, shut down device.

Shutdown

For longer work breaks or if a frost free storage is not possible:

- Empty detergent tank.
- Drain water.
- Flush device with anti-freeze agent.

Dump water

- Screw off water supply hose and high pressure hose.
- Screw off supply hose at boiler bottom and drain heating spiral empty.
- Operate device for max. 1 minute until the pump and conduits are empty.

Flush device with anti-freeze agent

Note: Observe handling instructions of the anti-freeze agent manufacturer.

- Use commercially available anti-freeze agent.
- Switch on appliance (without heater) till the appliance has been completely rinsed.

A certain corrosion protection is achieved with this as well.

Storage

⚠ CAUTION

Risk of personal injury or damage! Consider the weight of the appliance when storing it.

Transport

Figure 6

ATTENTION

Risk of damage! When loading the appliance with a forklift, observe the illustration.

ATTENTION

Protect the trigger from damage during transport.

⚠ CAUTION

Risk of personal injury or damage! Mind the weight of the appliance during transport.

- When transporting in vehicles, secure the appliance according to the guidelines from slipping and tipping over.

Care and maintenance

⚠ DANGER

Risk of injury by inadvertent start-up of appliance and electric shock. Prior to all work on the appliance, switch off the appliance and pull the power plug.

- Shut off water supply.
- Open the hand spray gun.
- Switch on the pump with the power switch and allow to run for about 5-10 seconds.
- Close the hand spray gun.
- Set the appliance switch to "0/OFF".
- Pull main plug out of socket with dry hands only.
- Remove water connection.
- Activate hand spray gun until device is pressure less.
- Secure the trigger gun. To do so, push the safety catch towards the front.
- Allow device to cool down.

Your Kärcher vender will inform you about the performance of a periodic safety inspection resp. signing of a maintenance contract.

Maintenance intervals

Weekly

- Clean the sieve in the water connection.
- Clean the fine filter.
- Clean the fuel sieve.
- Check oil level.

ATTENTION

Risk of damage! In case of lacteous oil inform Kärcher customer service immediately.

Monthly

- Clean sieve in the water shortage safe guard.
- Clean filter at the detergent suck hose.

Every 500 operating hours, at least annually

- Oil change.
- Have the maintenance of the device performed by the customer service.

Maintenance Works

Clean the sieve in the water connection

- Take out sieve.
- Clean sieve in water and reinstall.

Cleaning the fine filter

- Unpressurize the appliance.
- Unscrew the fine filter from the pump head.
- Remove the fine filter and the filter insert.
- Clean the filter with clean water or compressed air.
- Reinstall in reverse sequence.

Clean the fuel sieve

- Knock the dirt off of the fuel sieve. Do not let the fuel enter the environment.

Clean sieve in the water shortage safe guard

- Unpressurize the appliance.
- Remove the fastening clamp and pull out the hose (soft damping system) of the lack of water fuse.
- Take out sieve.

Note: If necessary turn in screw M8 appr. 5 mm inwards and therewith pull out sieve.

- Clean sieve in water.
- Push sieve inwards.
- Slide the hose adapter all the way into the lack of water fuse and secure it with a fastening clamp.

Clean filter at the detergent suck hose

- Take out detergent suck supports.
- Clean filter in water and reinstall.

Oil change

- Ready a catch bin for appr 1 Litre oil.
- Loosen release screw.

Dispose of old oil ecologically or turn in at a gathering point.

- Tighten release screw.
- Fill oil slowly up to the MAX marking.

Note: Air pockets must be able to leak out.

For oil type refer to technical specifications.

Troubleshooting

⚠ DANGER

Risk of injury by inadvertent start-up of appliance and electric shock. Prior to all work on the appliance, switch off the appliance and pull the power plug.

Indicator lamp "Ready for use" turns off

- No line voltage, see "Appliance is not running".

Fuel indicator lamp glows

- Fuel tank empty.
- ➔ Refill fuel.

Indicator lamp for detergent glows

- Detergent tank is empty.
- ➔ Refill detergent.

Appliance is not running

- No power
- ➔ Check power connection/conduit.

Device is not building up pressure

- Low pressure nozzle is installed
- ➔ Replace the low-pressure nozzle with the high-pressure nozzle (stainless steel).
- Air within the system

Vent pump:

- ➔ Set dosing value for detergent to "0".
- ➔ With open hand spray gun turn device on and off multiple times with the device switch.

Note: By dismantling the high pressure hose from the high pressure connection the venting process is accelerated.

- ➔ If detergent tank is empty, refill.
- ➔ Check connections and conduits.
- Sieve in the water connection is dirty
- ➔ Clean sieve.
- ➔ Clean the fine filter; replace it, if necessary.
- Amount of water supply is too low.
- ➔ Check water supply level (refer to technical data).

Device leaks, water drips from the bottom of the device

- Pump leaky

Note: 3 drops/minute are allowed.

- ➔ With stronger leak, have device checked by customer service.

Device turns on and off while hand spray gun is closed

- Leak in the high pressure system
- ➔ Check high pressure system and connections for tightness.

Device is not sucking in detergent

- High pressure nozzle is installed
- ➔ Replace the high-pressure nozzle with the low-pressure nozzle (brass).
- Filter in the detergent suck hose dirty
- ➔ Clean filter.
- Backflow valve stuck
- ➔ Remove the detergent hose and loosen the backflow valve using a blunt object.

Burner does not start

- Fuel tank empty.
- ➔ Refill fuel.
- Water shortage
- ➔ Check water supply, check connections.
- ➔ Clean sieve in the water shortage safe guard.
- Fuel filter dirty
- ➔ Change fuel filter.
- No ignition spark
- ➔ If device is in use and no ignition spark can be seen through the viewing glass, have device checked by customer service.

Set temperature is not achieved while using hot water

- Sooty heating spiral
- ➔ Have device de-sooted by customer service.

Customer Service

If malfunction can not be fixed, the device must be checked by customer service.

Warranty

The warranty terms published by the relevant sales company are applicable in each country. We will repair potential failures of your appliance within the warranty period free of charge, provided that such failure is caused by faulty material or defects in manufacturing. In the event of a warranty claim please contact your dealer or the nearest authorized Customer Service centre. Please submit the proof of purchase.

Accessories and Spare Parts

Note: When connecting the appliance to a chimney or if the device cannot be accessed visually, we recommend the installation of a flame monitor (option). Only use original accessories and spare parts, they ensure the safe and trouble-free operation of the device. For information about accessories and spare parts, please visit www.kaercher.com.

Technical specifications

		HDS 5/10 C
Main Supply		
Voltage	V	240
Current type	Hz	1~ 50
Connected load	kW	2,2
Protection (slow)	A	<10
Type of protection	--	IPX5
Protective class	--	I
Maximum allowed net impedance	Ohm	0.4526
Water connection		
Max. feed temperature	°C	30
Min. feed volume	l/h (l/min)	700 (11,7)
Suck height from open container (20 °C)	m	0,5
Max. feed pressure	MPa (bar)	1 (10)
Performance data		
Water flow rate	l/h (l/min)	500 (8,3)
Operating pressure of water (using standard nozzle)	MPa (bar)	10 (100)
Max. excess operating pressure (safety valve)	MPa (bar)	13 (130)
Max. operating temperature of hot water	°C	98
Detergent suck in	l/h (l/min)	0-30 (0-0,5)
Burner performance	kW	39
Maximum consumption of heating oil	kg/h	3,2
Max. recoil force of trigger gun	N	20,1
Size of standard nozzle	--	034
Values determined as per EN 60335-2-79		
Noise emission		
Sound pressure level L_{pA}	dB(A)	74
Uncertainty K_{pA}	dB(A)	3
Sound power level L_{WA} + Uncertainty K_{WA}	dB(A)	92
Hand-arm vibration value		
Hand spray gun	m/s ²	1,3
Spray lance	m/s ²	2,4
Uncertainty K	m/s ²	0,3
Fuel		
Fuel	--	Fuel oil EL or Diesel
Amount of oil	l	0,3
Oil grade	--	0W40
Dimensions and weights		
Length x width x height	mm	1060 x 650 x 920
Typical operating weight	kg	100,6
Fuel tank	l	15,5
Detergent Tank	l	15,5



THANK YOU!
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Registre su producto y aproveche de muchas ventajas.

www.kaercher.com/welcome



Bewerten Sie Ihr Produkt und sagen Sie uns Ihre Meinung.

Rate your product and tell us your opinion.

Évaluer votre produit et dites-nous votre opinion.

Reseñe su producto y díganos su opinión.



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